

Stop 3

Athletic Field Systems Study

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Due to the increasing awareness of player safety, there has been a major transition occurring in the athletic field industry. Many of the fields that had previously converted into artificial grass surfaces in the 1960's and 70's have reconverted into natural grass surfaces. The primary reason for the change is that the consensus of professional football players not only feel that natural grass provides a better playing surface, but that it is less likely to cause a career threatening injury (Survey, 1994). These concerns have filtered down to colleges and high schools as well. With the resurgence of the natural grass field comes the goal of constructing the athletic field that will endure the rigors of athletic competition during all weather conditions.

The key to constructing the "perfect field" lies in the choice of the root zone material. Traditional fields developed on native soil with high silt and clay content will provide excellent stability but drain poorly, and the quality of the playing surface quickly diminishes in unfavorable weather conditions and with heavy use. Sand root zones typically drain very well, but often times are unstable. Many newly constructed fields have failed because of this instability of the root zone. Since the instability of sand has been diagnosed as a problem, there have been many products developed to stabilize the sand root zone. For the purpose our study, we have selected currently available products, which have been shown, to at least some degree, to provide stability while maintaining adequate drainage. The treatments are listed below in no particular order:

1. GrassMaster™
2. Sportgrass™
3. Hummer Supertiles™
4. Motz Grass™
5. ReFlex™ Mesh Elements
6. Ventway Stabilizers™
7. Sportgrids 360™
8. Profile™
9. ZeoPro™
10. Sand-Soil mix (7% silt + clay)
11. Sand-Soil mix (10% silt + clay)
12. Sand-Soil mix (17% silt + clay)
13. Common Bermudagrass (10% silt + clay)
14. Topdressing Sand (TDS 2150)
15. Tri-Turf Soils #28 Sand